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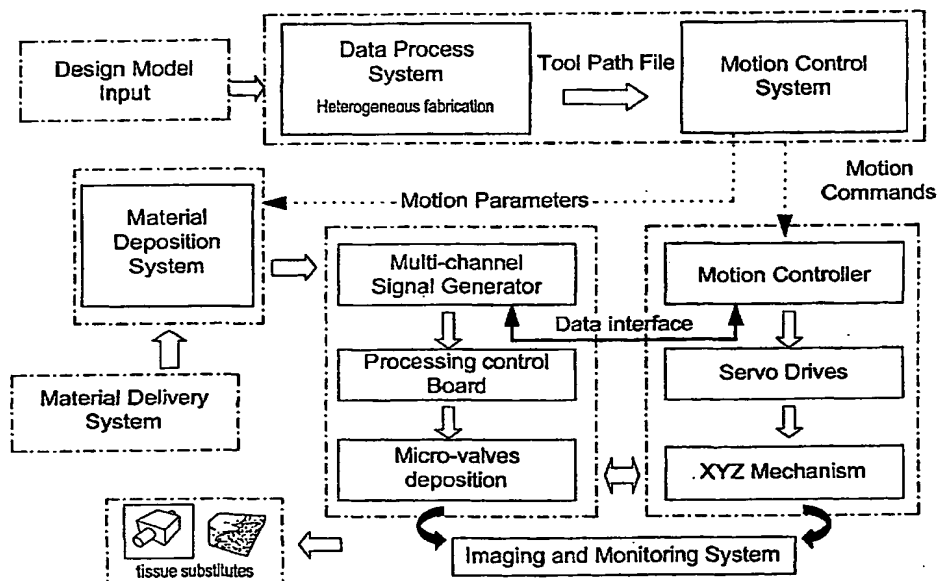
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(54) Title: METHOD AND APPARATUS FOR COMPUTER-AIDED TISSUE ENGINEERING FOR MODELING, DESIGN
AND FREEFORM FABRICATION OF TISSUE SCAFFOLDS, CONSTRUCTS, AND DEVICES



(57) Abstract: A process and apparatus are provided for manufacturing complex parts and devices which utilize a CAD environment to design a part or device to be created (Figure 1); Boolean, scaling, smoothing, mirroring, or other operations to modify the CAD design; a software interface to convert the CAD designed part (Data Process System) or device into a heterogeneous material and multi-part assembly model (Design Input Model) which can be used for multi-nozzle printing; and a multi-nozzle system to print the designed part or device using different, specialized nozzles (Tissue substitutes).



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